

## ABSTRACT

A security communication packet processing apparatus includes an encryption processing unit that performs  
5 encryption and decryption processing in a data block unit of B1 bits, an authentication processing unit that performs authentication processing in a data block unit of B2 ( $= n \times B1$ ) bits in parallel to the encryption or decryption processing in the encryption processing unit and outputs an authentication  
10 value, a data block accumulation unit that accumulates the data blocks from the encryption processing unit and outputs them to the authentication processing unit when the accumulated data blocks reaches B2 bits, a packet construction unit that reconstructs a packet with the data blocks from the  
15 encryption processing unit and the authentication value from the authentication processing unit, and a processing control unit that divides the inputted packet into the data blocks of B1 bits and outputs the data blocks sequentially to the encryption processing unit.